

# San Francisco Bay Conservation and Development Commission

455 Golden Gate Avenue, Suite 10600, San Francisco, California 94102 tel 415 352 3600 fax 415 352 3606

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## **Application Summary:** **San Francisco Fireboat Station 35** (For Commission consideration on April 4, 2019)

**BCDC Permit Application Number:** 2018.002.00  
**Application Filed Complete:** March 21, 2019  
**Deadline for Commission Action:** June 19, 2019  
**Staff Assigned:** Rebecca Coates-Maldoon  
(415) 352-3634  
rebecca.coates-maldoon@bcdcc.ca.gov

### Summary

**Applicants:** San Francisco Public Works, San Francisco Fire Department ("SFFD"), and Port of San Francisco ("Port")

**Location:** In the Bay and within the 100-foot shoreline band, at Pier 22 ½, along the San Francisco Waterfront, between Folsom and Harrison Streets, in the City and County of San Francisco.



**Project:** The proposed project involves the construction of a new fireboat station in the Bay at Piers 22 ½ and 24, adjacent to the historic Fire Station No. 35 on the northeast San Francisco waterfront. The proposed project would include a two-story fireboat station on a steel float, an access ramp and gangway, and a public access observation deck.

To construct the proposed floating fireboat station facility, an approximately 16,435-square-foot (173-foot by 95-foot) steel float would be installed approximately 44 feet offshore of the marginal wharf at Pier 22 ½. The float would be moored by four 60-inch-diameter vertical steel pipe guide piles. Lift cranes mounted on the float would be used to move equipment and small craft between the float and the water. The apron around the floating fireboat station (ranging from 10 to 33 feet in width) would provide mooring for three fireboats and one small water rescue craft.

A two-story, 31.6-foot-tall (at parapet) fireboat station would be built atop the steel float. In sections with mechanical equipment and associated screen on the roof, the total height of the fireboat station would be 36 feet. The perceived height of the fireboat station from the shoreline would vary as the float rises and falls along with the tides. The first floor of the fireboat station would include the following facilities: a rescue boat bay, a night watch room, electrical room, space for gear cleaning and decontamination after emergency responses, equipment lockers, fireboat maintenance and repair equipment, and fuel storage. The south side of the first floor would have large doors to allow ambulances to use a large open space on the first floor as a loading and turn-around area.

The second floor of the proposed floating fireboat station would include a total of 35 beds (an open dormitory space with 23 beds and 4 officer dormitory rooms with 3 beds each), a laundry room, day room, dining room, kitchen with outdoor observation deck at the east end of the building, and lockers, showers and bathrooms. The roof would contain mechanical equipment, and the building would also contain slide poles, stairs, and an elevator.

An access ramp and a pedestrian gangway would connect the existing marginal wharf to the float and provide for pedestrian and vehicle access to the floating fireboat station. On the marginal wharf, existing fencing would be relocated to create additional public space on Herb Caen Way. An approximately 2,100-square-foot pile-supported public observation deck would be constructed adjacent to the marginal wharf.

The existing Fire Station No. 35 would remain in place and no renovation work is proposed for that structure nor for the portion of the marginal wharf that would remain, although some repair work would take place on the marginal wharf south apron. Existing finger piers at the site would be demolished, including the existing Pier 22 ½ and a remnant section of Pier 24.

#### **Issues**

**Raised:** The staff believes that the application raises four primary issues: (1) whether the project would be consistent with the Commission’s law and policies on allowable Bay fill, including water-oriented use, upland alternative, and minimum fill necessary; (2) whether maximum feasible public access is provided consistent with the project, in accordance with the McAteer-Petris Act, Bay Plan, and San Francisco Waterfront Special Area Plan policies on Public Access; (3) whether the project would be consistent with the Bay Plan and Special Area Plan policies related to Appearance, Design, and Scenic Views; and (4) whether the project would be consistent with Bay Plan policies related to sea level rise and flooding.

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## Background

**Site Description and Existing Use.** The project site is located on the City and County of San Francisco's northeast waterfront at Piers 22 ½ and 24, on The Embarcadero, northeast of Harrison Street. The site is bounded by the Waterbar restaurant to the north, the Bay to the east, Pier 24 to the south, and Herb Caen Way and The Embarcadero to the west. The Ferry Building is located approximately 2,250 feet north of the project site.

Pier 22 ½ is a non-historic finger pier with a 2,200-square-foot shed, along which up to two fireboats are moored. The shed is used as a repair shop for the fireboats and living quarters for the fireboat pilots. Directly south of Pier 22 ½ is a pile-supported marginal wharf structure, upon which SFFD Fire Station No. 35 is located. The two-story fire station was built in 1915, and is a designated San Francisco Landmark and a contributing resource to the Port of San Francisco's Embarcadero Historic District, listed in the National Register of Historic Places. The fire station includes a garage with capacity for one fire engine, lodging facilities serving a 21-person fire company, a kitchen, a fitness area, and equipment storage. The historic fire station does not meet modern design standards for firehouse facilities. Small parking lots are currently located on both the north and south aprons of the marginal wharf adjacent to Fire Station No. 35. The parking lot to the south also contains an auxiliary water supply system manifold (to draw water from the Bay for use in an emergency) and a backup generator. A dilapidated pile-supported pier is located off of the marginal wharf to the south, which is a remnant portion of the former Pier 24 and is not in use due to its deteriorated condition.

**Related BCDC Permits.** Herb Caen Way runs parallel to the project site, and is a required public access area under BCDC Permit No. 1990.008. Herb Caen Way, which ranges from 40- to 80-feet-wide in front of the project site, doubles as the Bay Trail at this location, and is within a dedicated view corridor under BCDC Permit No. 1990.008 that runs along the shoreline to the north and south of the project site. Harrison Street and Folsom Street are also dedicated view corridors under BCDC Permit No. 1990.008.

Several BCDC permits have also been issued for work pertaining to the existing Fire Station No. 35, including: 1) M1998.070.02, related to seismic retrofit work of the station; 2) M1997.010.00, for the installation of a telecommunications facility on the roof of the station; 3) NO1996.013.00, for the installation of an emergency generator and bollards at the station; and 4) E1987.074.00, for the replacement of a pier for fireboat mooring. Nearby, BCDC Permit No. M2016.016.00 authorized limited-term (through 2021) fireboat berthing and associated work at Pier 26.

## Project Description

### **Project**

**Details:** The applicants, San Francisco Public Works, San Francisco Fire Department (“SFFD”), and Port of San Francisco (“Port”), propose the following activities:

#### **In the Bay:**

1. Demolish and remove structures and facilities to allow the development of the fireboat station, including: (1) the approximately 3,300-square-foot north finger pier and shed and an approximately 2,800-square-foot portion of the south apron of Pier 22 ½, including a total of 74 piles (36 cubic yards), and fencing, equipment, and utilities associated with these areas; and (2) the approximately 1,750-square-foot south finger pier (a remnant of the former Pier 24), including approximately 26 piles (15 cubic yards);
2. Install, use, and maintain in-kind an approximately 16,435-square-foot steel float, supported by four 60-inch-diameter guide piles, including an approximately 14,487-square-foot, 2-story fireboat station building, a jet ski land platform and lift, crane, fender system, and associated mechanical equipment;
3. Install, use, and maintain in-kind an approximately 160-square-foot gangway and an approximately 1,980-square-foot ramp connecting the float and the Pier 22 ½ marginal wharf;
4. Install, use, and maintain in-kind an approximately 450-square-foot grated platform from the edge of the Pier 22 ½ marginal wharf to support fire hoses with an 8-foot-tall security fence and 3.5-foot-tall guard rails;
5. Construct, use, and maintain in-kind an approximately 3,122-square-foot public access area, consisting of: (1) an approximately 1,522-square-foot area of the existing Pier 22 ½ marginal wharf; (2) an approximately 1,800-square-foot portion of a 2,100-square-foot steel public observation deck (the remaining portion of which is to be constructed within the 100-foot shoreline band), supported by four 36-inch-diameter steel piles (approximately 16 cubic yards of fill); (3) associated safety railings, lighting, a viewing scope, interpretive signage, and a public art installation; and (4) 8-foot-tall security fencing to restrict access to non-public facilities;
6. Install, use, and maintain in-kind associated utilities on the Pier 22 ½ marginal wharf deck, including an electrical service switchboard; and
7. Conduct structural repairs on the south apron of Pier 22 ½, including replacing wood beams and joists.

**Within the 100-foot shoreline band:**

1. Construct, use, and maintain in-kind a 300-square-foot portion of a 2,100-square-foot steel public observation deck (the remaining portion of which is to be constructed in the Bay); and
2. Relocate a public restroom unit.

**Bay Fill:**

The proposed project would result in a total of 22,264 square feet (0.51 acres) and 82 cubic yards of new Bay fill, from the construction of a new floating fireboat station, a vehicle and pedestrian access ramp and gangway, additional uses associated with the fireboat station, and a public observation deck. The proposed project would remove a total of 23,962 square feet (0.55 acres) and 233 cubic yards of fill both at the project site and at another site on the San Francisco Waterfront (Pier 70). The proposed project would result in a net reduction in Bay fill of 1,698 square feet and 151 cubic yards (Table 1).

<b>Table 1. SF Fireboat Station Project Bay Fill Totals</b>	<b>Area (Square Feet)</b>	<b>Volume (Cubic Yards)</b>
<b>New Fill</b>		
Float and Fireboat Station	16,545	0
Fireboat Station Support Uses*	1,779	66
Vehicle Access Ramp	1,980	0
Gangway	160	0
Public Observation Deck	1,800	16
<b>Total New Fill</b>	<b>22,264</b>	<b>82</b>
<b>Removed Fill</b>		
On-Site: North Finger Pier and South Parking Lot	6,100	36
Off-Site: Pier 70 and Pier 70 Wharf 8	17,862	197
<b>Total Removed Fill</b>	<b>23,962</b>	<b>233</b>
<b>Net Fill</b>	<b>-1,698</b>	<b>-151</b>

\*Fireboat Station Support Uses include the float guide piles and pile collars, AWSS hose platform, utility platform, and jet ski lift platforms.

*Note:* The project also proposes to remove the approximately 1,750-square-foot south finger pier at Fire Station No. 35, along with 26 piles (15 cubic yards). This pier is a remnant of Pier 24, which was designated for removal in the San Francisco Waterfront Special Area Plan, and thus is not counted in the total of removed fill for purposes of this project.

**Public**

**Access:** The proposed project would construct a new public observation deck, and would move fencing and otherwise open up certain areas of the existing marginal wharf to the public that are currently off-limits. The south apron area of the marginal wharf would be open during to the public during daylight hours only, and would be closed at night and during emergency events. In total, the proposed project would result in approximately 3,622 square feet (0.08 acres) of new public access areas.

Proposed Public Access	Proposed Public Access	Area in the 100-foot shoreline band (square feet)	Total Area (square feet)
Public Observation Deck	1,800	300	2,100
Marginal Wharf: South	1,030	0	1,030
Marginal Wharf: North	492	0	492
<b>Total Project</b>	<b>3,322</b>	<b>300</b>	<b>3622</b>

**Schedule and Cost:**

The applicants propose to begin construction in June 2019, beginning with demolition of finger piers and piles, pile driving, and construction of the public observation deck, while the construction of the fireboat station facility warm shell takes place at Pier 1 on Treasure Island. The new float and fireboat station would be towed to the project site in approximately June 2020. Project construction is anticipated to be completed in early 2021. In-water work would be restricted to the period from June 1 to November 30, to avoid impacts to listed species. The total project cost is \$39.9 million.

### Staff Analysis

**Issues Raised:** The staff believes that the application raises four primary issues: (1) whether the project would be consistent with the Commission's law and policies on allowable Bay fill, including water-oriented use, upland alternative, and minimum fill necessary; (2) whether maximum feasible public access is provided consistent with the project, in accordance with the McAteer-Petris Act, Bay Plan, and San Francisco Waterfront Special Area Plan policies on Public Access; (3) whether the project would be consistent with the Bay Plan and Special Area Plan policies related to Appearance, Design, and Scenic Views; and (4) whether the project would be consistent with Bay Plan policies related to sea level rise and flooding.

A. **Bay Fill.** Section 66605 of the McAteer-Petris Act provides that further filling of the Bay may be authorized by the Commission only when public benefits from fill clearly exceed public detriment from the loss of water areas and is limited to water-oriented uses or minor fill for improving shoreline appearance or public access to the Bay. Additionally, fill of the Bay should be authorized only if: no alternative upland location is available for such purpose; the water area authorized to be filled is the minimum necessary to achieve the purpose of the fill; harmful effects to the Bay and its waters are minimized; the fill is constructed in accordance with sound safety standards; the fill establishes, to the maximum extent feasible, a permanent shoreline; and, the applicant has valid title to the property in question. In addition, the project site is within the Northeast Waterfront planning area as defined by the Commission's San Francisco Waterfront Special Area Plan (SAP) and is subject to the policies therein, including those related to Bay fill and use.

1. **San Francisco Waterfront Special Area Plan.** The proposed project is located within an SAP-defined Open Water Area. SAP Open Water Areas Policy No. 2 states that "[w]ithin Open Water Areas, new fill should be limited only to the following: a. Minor pile-supported or floating fill for water transportation uses, such as ship and boat berthing facilities, mooring dolphins, buoys, floats and similar support uses; b. Minor, pile-supported fill for Bay-oriented commercial recreation and Bay-oriented public assembly uses. The amount of new pile-supported fill for such uses will be offset by removal of an equivalent amount of pile-supported fill elsewhere on the Northern Waterfront not otherwise designated as a pier for removal; ...e. Minor fill for improving shoreline appearance or public access to the Bay, consistent with the Commission's regulations."

The project would include new pile-supported fill for an approximately 1,800-square-foot portion of a 2,100-square-foot public observation deck in the Bay (the remainder of which is within the 100-foot shoreline band), located adjacent to Herb Caen Way. The footprint of the public observation deck would be minimal and of a size appropriate for the anticipated level of use. The observation deck would be used for public access purposes, including Bay viewing, and potentially for Bay-oriented public assembly uses.

The float and fireboat station collectively support the mooring and use of the SFFD's fireboats for water-based emergency response. SFFD's three fireboats and an additional small water rescue craft will be moored at the edges of the float, and the length of the proposed float was designed by the project proponents to specifically accommodate the mooring of these vessels. The proposed fire station located on top of the float would be used to house on-duty firefighters and emergency equipment close to the fireboats, which would support the use of the fireboats with rapid response times in an emergency situation. The 16,435-square-foot steel float, 14,487-square-foot fireboat station on top of the float, and associated fill for the access ramp, gangway, and supporting equipment, could be found to represent minor floating fill for water transportation uses.

**Public Benefit v. Detriment.** McAteer-Petris Act Section 66605 requires that further filling of the Bay may be authorized by the Commission only when public benefits from fill clearly exceed public detriment from the loss of water areas. The fill involved in this project would include the fireboat station facilities, and a smaller area of fill for public access.

SFFD's fireboats serve a unique role in Bay Area emergency response and would be moored onsite at the proposed steel float and fireboat station. The applicants indicate that the fireboats associated with the proposed project represent the only fireboat unit to respond to emergency incidents on San Francisco Bay, and that "[o]ther agencies such as the U.S. Navy and the Oakland Fire Department have decommissioned their maritime rescue units." SFFD fireboats respond to a variety of water-based emergency incidents on and from the Bay, including water rescues, medical emergencies, fires, and vessel distress calls. The fireboats responded to approximately 350 incidents in 2016, and the applicants indicate that the number of incidents for which fireboat response is needed has increased over time. The application states that "[i]n addition to providing essential emergency response services along the San Francisco waterfront, San Francisco's Fireboats are capable of responding anywhere in the San Francisco Bay. SFFD is a partner in California's Mutual Aid Agreement and Regional Mutual Aid Agreements which make San Francisco's Fireboats a regional asset. The Fireboats are available to respond to requests from Bay Area communities as well as federal and state government agencies such as the Office of Emergency Services and the U.S. Coast Guard."

2. **Water-Oriented Use.** McAteer-Petris Act Section 66605 provides that fill should be limited to water-oriented uses or minor fill to improve shoreline appearance or public access. The fill proposed by this project for the fireboat station and float would provide for water-oriented emergency and disaster response operations along the San Francisco shoreline and in the greater Bay Area.

The current historic Fire Station No. 35 is staffed 24 hours per day, year-round, by three rotating crews of seven individuals, each consisting of four staff for Engine Company No. 35 and three staff for the Fireboat Company, as well as four vacation relief or swing firefighters (a total of 25 individuals). Engine Company No. 35 primarily responds to land-based calls using the fire engine housed in the historic Fire Station No. 35, while the Fireboat Company responds to marine rescue calls using the fireboats. Engine Company No. 35 is cross-trained to support water-based emergency operations as needed.

The proposed fireboat station would include living quarters for on-duty firefighters on the second floor, and the staff of both Engine Company No. 35 and the Fireboat Company would be housed at the proposed fireboat station during their shifts. The SFFD would also create a new, dedicated Marine Unit of firefighters, adding three firefighters per crew and one vacation relief or swing firefighter (10 additional individuals, for a total of 35 firefighting staff associated with the proposed project). The dedicated Marine Unit would allow for increased capacity in SFFD's water-based emergency operations. While staff of Engine Company No. 35 will be housed at the proposed floating fireboat station and will primarily respond to land-based emergencies, they will continue to be cross-trained in marine operations. During a water-based emergency, Engine Company

No. 35 is envisioned to assist the Marine Unit, utilize jet-skis alongside the fireboats, or perform other water rescue operations, in addition to their ability to respond to land-based emergency calls.

The proposed fireboat station would also include a Marine Disaster Operation Center that the applicants indicate would “oversee emergency disaster services to the San Francisco Bay Region.” The proposed fireboat station would be designated as an “essential facility” (defined in the California Building Code as a facility necessary for emergency operations subsequent to a disaster) and would support water-oriented emergency operations in the Bay and along the shoreline. Additionally, the applicants indicate that the proposed project would consolidate SFFD’s marine assets into a single location, rather than being scattered among fire stations across the City’s waterfront, which would enhance the ability of the department to effectively respond to marine emergency situations.

Additionally, the proposed project would include approximately 1,800 square feet of Bay fill for the construction of a public observation deck. The deck would allow the public to view and enjoy the Bay over the water, view the proposed new fireboat station and fireboats from a unique vantage point, and engage with the history of the fireboat operations.

3. **Alternative Upland Location.** McAteer-Petris Act Section 66605 provides that fill should be authorized only when no alternative upland location is available for such purpose. The facilities for mooring and operating the fireboats themselves must necessarily occur on water, and therefore have no upland alternative location. The fireboat station also includes dormitories, living spaces, and office spaces to support the housing and operations of the fire crews within the facility. SFFD believes this to be appropriate and necessary within the station given its nature as an emergency facility, as the use of the fireboats for water-based emergency rescue and response purposes necessitates having the fastest possible response times in an emergency event. The application states that “[t]o provide the fastest response fire personnel must be in close proximity at all times to the fire boats and rescue water craft.” The application notes that the National Fire Protection Association (NFPA) Standard 1710 guides response times for land-based emergency response operations, requiring “units to be on scene for a fire call within 5 minutes and at a medical call within 4 minutes and 30 seconds. The NFPA does not have a required response time for fireboats but the SFFD strives for the fireboats to follow the land-based requirements. The median response time for the fireboats from the historic Fire Station No. 35, for 2017, is 6 minutes and 46 seconds. The SFFD believes this is acceptable and will decrease when the new fireboat facility is operational.”

Any alternative upland location for a new fireboat station would place firefighters and their equipment farther away from the fireboats, which would result in slower emergency response times and could therefore decrease effectiveness of water-based emergency operations and increase potential consequences of an emergency incident on the Bay.

The applicants considered several other alternative locations for the fireboat station

along the San Francisco waterfront that could potentially serve the project purpose of allowing for rapid response to water-based emergencies, including an expansion or retrofit of the historic Fire Station No. 35, or construction of a new station on Piers 19, 26, or 30-32. In all of these cases, a new or updated fireboat station facility would be located on an existing pile-supported wharf, which would still be over water but would be built within the footprint of existing fill. With regards to the historic Fire Station No. 35, the applicants indicate that the station is unsafe under current seismic safety standards—which would require substantial retrofit work to the marginal wharf at Pier 22 ½—and faces regulatory constraints on its rehabilitation or expansion due to its status as an historic landmark. Piers 19 or 26 would also require substantial retrofits of the pier substructure to meet seismic safety standards necessary for an emergency response facility, with an estimated project cost of \$75 million, nearly double the project cost of the proposed new fireboat station. These locations were also considered less desirable than the proposed project location for operational reasons; for example, the applicants indicate that Pier 19 was less desirable “with respect to response times, inefficient space layout given the length of the pier, and no infrastructure for the manifold, which is crucial to the fireboat’s role in supplying water to the City’s Auxiliary Water Supply System.” A new fireboat station was originally considered in the proposal for the Warriors’ arena development at Piers 30-32, but the project was abandoned in part due to the estimated project cost of \$155 million to repair the piers. The applicants have indicated that these alternative locations considered are not feasible because of the cost differentials involved in the pier retrofit work that would be necessary to support a critical emergency facility, which would exceed the bond funding allocated to this project.

Additionally, the proposed project site at Pier 22 ½ was also chosen by the applicants, in part, for its central location along the San Francisco waterfront, which allows for faster response to locations across San Francisco and the Bay shoreline more generally, including recent large-scale shoreline developments and the Bay Bridge.

In evaluating whether alternative upland locations exist for the proposed fireboat station and float, Commission staff also explored with the applicants whether all of the equipment and uses on the proposed fireboat station and float were necessary at that location for purposes of rapid water-based emergency response, or whether certain portions of the project could be based in an on-land alternative upland location. In their February 26, 2018 review of the project, the Commission’s Design Review Board also recommended that the project take pressure off of the new fireboat station by using portions of the historic Fire Station No. 35. Following the DRB’s first review of the project, the applicants updated the project design to move the Extractor Room to the historic Fire Station No. 35, where firefighters would wash and dry their turnouts after landside call for service. The on-land historic station would also support a fitness room (in the current dormitory), and storage areas for landside firefighting gear (in the

current Officers', Engineers', and Boat Officers' rooms). The applicants have subsequently stated that "[t]he fire department strived during programming to include only essential facilities at the new fireboat station and does not believe any portion of the project could be moved to an upland location without having a negative impact."

4. **Minimum Amount Necessary.** Section 66605 of the McAteer-Petris Act states that the water area authorized to be filled is the minimum necessary to achieve the purpose of the fill, and Bay Plan policies on Water Surface Area and Volume state, in part, "[t]he surface area of the Bay and the total volume of water should be kept as large as possible... and [f]illing...that reduce surface area and water volume should therefore be allowed only for purposes providing substantial public benefits and only if there is no reasonable alternative." As proposed, the new Bay fill that would result from the installation of the fireboat station, float, and associated features totals approximately 20,824 square feet and 66 cubic yards. The project would also result in a total of 1,800 square feet and 16 cubic yards of new Bay fill to construct a new public access observation deck.

The applicants indicate that the SFFD's operational needs drive the size of the proposed float and fireboat station structure. The first floor operations of the proposed fireboat station, including the ambulance turn-around, determined the footprint of the building. The second floor of the proposed fireboat station includes beds to meet modern fire station design standards (i.e., the correct number of beds to accommodate the total number of firefighters stationed at the facility). The applicants indicate that each building room and function is required within the floating fireboat station and is the minimum size necessary. After discussions with Commission staff and review by the Commission's Design Review Board, the applicants revisited the design of the fireboat station to determine whether the overall structure size and massing could be reduced. In the revised proposal, the height of the fireboat station was reduced from the original design, from 34 feet tall to 31.6 feet at parapet, but remains the same height in sections with mechanical equipment at 36 feet. The length of the fireboat station was reduced from 151 feet to 139.3 feet, reducing the total square footage by approximately 1,217 square feet or 8 percent (from 15,704 square feet in the original iteration to the 14,487 square feet currently proposed). This change was primarily due to the reduction of space related to and/or numbers of toilet fixtures, beds, desks, and shafts. The length of the float itself is designed for mooring of the three fireboats and a smaller water rescue craft, and was therefore considered independent of the change in size of the proposed fireboat station (i.e., the applicants indicate that the size of the float cannot be further reduced given the intended purpose).

5. **Effects on Bay Resources.** In addition to Section 66605(d) of the McAteer-Petris Act regarding the impacts of fill on Bay resources, the Bay Plan contains related policies, cited below.
  - a. **Fish and Wildlife.** The Bay Plan Fish, Other Aquatic Organisms and Wildlife Policy No. 4 states, in part, that "[t]he Commission should consult with the California Department of Fish and [Wildlife] and the U.S. Fish and Wildlife Service or the National Marine Fisheries Service whenever a proposed project may adversely affect

an endangered or threatened plant, fish, other aquatic organism or wildlife species... and give appropriate consideration of (their) recommendations in order to avoid possible adverse impacts of a proposed project on fish, other aquatic organisms and wildlife habitat.”

On March 13, 2019, the National Marine Fisheries Service (NMFS) issued an Endangered Species Act Section 7(a)(2) Concurrence Letter and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for the proposed project. NMFS determined that the fireboat station project may affect, but is not likely to adversely affect, threatened or endangered species or critical habitats.

Consistent with the NMFS determination, measures would be included within the project to avoid, minimize, or mitigate potential impacts to listed species. The construction work window would be restricted to June 1 to November 30, to protect salmonids. As mitigation for habitat impacts from the addition of Bay fill, the project would remove a remnant wharf and piles at Pier 70, discussed further in Staff Analysis Section A.6.d, below. A vibratory hammer would be used to install piles for the float and public observation deck, and a vibratory extractor would be used to remove piles associated with the finger piers at Pier 22 ½ and the proposed mitigation at Pier 70. The NMFS letter indicates that “vibratory hammers generate lower sound levels and different sound wave forms that, for the magnitude and duration of this Project’s pile driving and removal, are not expected to cause physical injury or mortality of listed fish” and that “pile installation and removal activities...are expected to result in minor, localized and short-term increases in turbidity.” The project would also include best management practices to contain and remove debris from the Bay during construction, to minimize sediment resuspension. The removal of creosote-treated piles at Pier 22 ½ and Pier 70 is anticipated to have beneficial biological effects.

The NMFS letter indicates that operation of the Auxiliary Water Supply System (AWSS) and fireboat use of Bay water during emergency response are expected to have a “discountable” risk of entrainment or impingement of listed species, and that disturbance from increased maritime activity (e.g., use of jet-skis) is also anticipated to be insignificant. The project would also include minimization measures to reduce potential biological impacts of increased nighttime illumination from the proposed Fireboat Station.

- b. **Water Quality.** The Bay Plan Water Quality policies state, in part, that “[w]ater quality in all parts of the Bay should be maintained at a level that will support and promote the beneficial uses of the Bay as identified in the San Francisco Bay Regional Water Quality Control Board’s (RWQCB) Basin Plan...[and] the policies, recommendations, decisions, advice, and authority of the State Water Resources Control Board and the Regional Board should be the basis for carrying out the Commission’s water quality responsibilities.” Policy No. 3 states, in part, that “[n]ew projects should be sited, designed, constructed, and maintained to prevent or, if prevention is infeasible, to minimize the discharge of pollutants into the Bay...”

On February 15, 2019, the RWQCB issued a Water Quality Certification for the proposed project. The RWQCB found that the proposed project would result in temporary impacts to approximately 15,900 square feet of the Bay and approximately 16,600 square feet of new or replaced impervious surfaces that could impact water quality. The RWQCB required mitigation including the installation of media filters and implementation of an offsite green infrastructure project to treat 8,300 square feet of impervious surfaces. Additionally, the Water Quality Certification requires that pile driving be conducted during low tides using a vibratory hammer, unless demonstrated infeasible, and that in-water construction be restricted to a June 1 – November 30 work window.

- c. **Dredging.** No dredging is proposed to be authorized as part of this project. The initial project application included proposed dredging which was intended to preempt the need for future dredging at the site should it be required to maintain adequate depth for fireboat mooring. However, in a memo dated September 20, 2018, San Francisco Public Works stated that: “Upon further analysis and discussion, we have affirmed and agreed that dredging is not necessary to construct the Project nor for navigation or berthing of the fireboats. Dredging has never been performed at Pier 22 ½ and no problems have been reported with regard to navigation, including the new fireboat, the St. Francis, which has a draft of nine feet.” The memo further states: “[i]n the worst case, where the bay floor is at [elevation] -11, there will be approximately seven feet of clearance between the bottom of the float and the bay floor. In the same scenario, there will be approximately two feet of clearance between the bottom of the boat and the bay floor.” The project proponents therefore revised their application to delete the request for dredging from the project description in the BCDC and other agency permit applications, as well as from the draft CEQA document.

In subsequent conversations with the Commission staff, the applicants have speculated that maintenance dredging may be needed at the site every five to ten years. To determine if and when any maintenance dredging may be required in the future, the applicants intend to monitor sedimentation after project construction. It is important to note that no dredging is proposed to be authorized under this permit application. Any future dredging would need to undergo all necessary analyses (including CEQA) and regulatory processes to determine if it would be appropriate and what impacts it would have to Bay resources at the site, and would require an amendment to this permit or a new permit from the Commission. A future dredging episode would likely be considered “new work” rather than “maintenance” dredging, as no dredging has been previously performed at the site.

- d. **Mitigation.** Bay Plan Mitigation Policy No. 1 states that “[p]rojects should be designed to avoid adverse environmental impacts to Bay natural resources such as to surface water area, volume, or circulation and to plants, fish, other aquatic organisms and wildlife habitat.... Whenever adverse impacts cannot be avoided, they should be minimized to the greatest extent practicable. Finally, measures to compensate for unavoidable adverse impacts to the natural resources of the Bay

should be required. Mitigation is not a substitute for meeting the other requirements of the McAteer-Petris Act.” The Bay Plan Mitigation policies also state, in part, that “[i]ndividual compensatory mitigation projects should be sited and designed within a Bay-wide ecological context, as close to the impact site as practicable...”

The project will result in the addition of approximately 22,264 square feet and 82 cubic yards of new Bay fill. To offset this addition of fill, the project proposes both on- and off-site fill removal as mitigation. On site, the project will remove the existing north finger pier deck, a portion of the parking lot on the south apron of the marginal wharf, and 74 piles, resulting in approximately 6,100 square feet and 36 cubic yards of fill removed. While the project will also remove the deteriorated south finger pier and associated 26 piles, resulting in the removal of approximately 1,750 square feet and 15 cubic yards of fill, the south finger pier is a remnant portion of Pier 24. Pier 24 was previously designated for removal in the San Francisco Waterfront Special Area Plan, and thus does not count towards the fill mitigation calculation for this project.

The project would also include the removal of a remnant wharf and pilings outside the project area, at Pier 70 and Pier 70 Wharf 8 (“Wharf 8”). Pier 70 is located approximately two miles south of the project site, on the southern waterfront in San Francisco. This proposed mitigation would result in the removal of approximately 17,862 square feet and 197 cubic yards of Bay fill. Pier 70 and Wharf 8, which are connected, originally served heavy industrial uses as part of a shipyard during World Wars I and II but have since become significantly deteriorated and many sections have collapsed. The proposed mitigation would remove dilapidated and collapsed portions of concrete and timber decking and piles.

In assessing whether the proposed mitigation at Pier 70 and Wharf 8 was appropriate to offset the impacts at Pier 22 ½, GHD Engineering prepared a Draft Biological Resources Report, dated February 2019, on behalf of the applicant. The report concluded, in part, that “[a]lthough generally degraded by past development, the [Pier 70 and Wharf 8] site maintains greater habitat value than the impact site at Pier 22 ½, which is deeper and has a less complex shoreline. Presence of more diverse habitat structure immediately adjacent to Pier 70...offers suitable mitigation potential. Removal of the pier structure will open up intertidal and sub-tidal pelagic habitats which are currently heavily shaded and devoid of vegetation, and the adjacent habitat would be expected to expand into the newly available area. Removal of pilings would result in a net gain of aquatic habitat and a reduction in fill. Residual creosote in old timber pilings...would be removed from the Bay. Although the mitigation site may be shallower and rockier than the impact site, it is adjacent to deeper open Bay waters and overall it adds diversity. Removal of the pier also eliminates a potential safety hazard for wildlife; ...several pier sections in the area proposed to be removed have already collapsed into the water, and presumably additional areas will collapse in the future if not removed.”

With the proposed on- and off-site mitigation, the proposed project would result in a net reduction in Bay fill of 1,698 square feet and 151 cubic yards.

6. **Valid Title.** The Port of San Francisco owns the project site, which was conveyed to the Port by the State of California via the Burton Act of 1968. The applicants therefore have valid title to the property where fill is proposed.
7. **Safety of Fills.** In addition to Section 66605(e) of the McAteer-Petris Act regarding the seismic and flooding standards by which fill is designed and constructed, the Bay Plan contains related policies. Bay Plan Safety of Fills Policy No. 2 states, in part, that “[e]ven if the Bay Plan indicates that a fill may be permissible, no fill or building should be constructed if hazards cannot be overcome adequately for the intended use...” The Bay Plan Safety of Fills policies also include policies on sea level rise, which are discussed further under Staff Analysis Section D, below.

The majority of the project is located in the Bay, and thus is subject to the Commission’s law and policy on Safety of Fills. The marginal wharf at Pier 22 ½ partly rests on top of a rock dike that forms a small part of the four-mile-long San Francisco seawall along the Embarcadero. The proximity of the float and fireboat station to the rock dike and seawall has been evaluated as part of the project design. The applicants state that the “geotechnical and structural calculations find that in the larger design earthquakes, the seawall including dike may displace towards the water by 1’ to 2’ resulting in plastic hinges forming deep in the ground, just above the bottom of dike and near bedrock. The strains in the piling meet the design criteria, ASCE 61-14. The piling vertical capacity will remain adequate, and the lateral capacity for resisting the design earthquake inertial loads remains adequate. In summary, the facility design meets the project design criteria for an ‘essential facility’ and is expected to remain operational after the large design earthquake and design storm events.”

While the fireboat station itself is expected to remain operational after an earthquake, the displacement of the rock dike and seawall could impede access to and from the float following a strong earthquake. If access to the float is compromised, the emergency operations of the fireboat station could also face consequences (e.g., emergency vehicles and firefighting staff would not be able to get on or off the float). The applicants have therefore proposed installing lightweight temporary spans over any displaced areas following a strong earthquake, which would allow for vehicles and pedestrians to enter and exit the float. The displacement of the dike and seawall in an earthquake could also damage the separation joint plates between the pier and land. The applicants propose to stockpile and install steel trench plates that could be used to address this issue following an earthquake.

The applicants also evaluated the safety of the marginal wharf south apron, which is proposed to be dedicated as a public access area. On December 21, 2018, the project structural engineers, GHD Engineering, released a memorandum that concluded that the south apron area would require structural repairs and strengthening but does not require a seismic retrofit in order to use that area for public access, provided that the south apron does not exceed a capacity of 100 individuals. The applicants therefore

have proposed posting a sign at the south apron that limits capacity to less than 100 people. The applicants also indicate that these capacity limitations contribute to their determination that public access would not be feasible on the north apron, as public use of both the north and south apron could exceed capacity and could then necessitate a seismic retrofit of the entire marginal wharf. The north apron is discussed further under Staff Analysis Section B.3.b, below.

The fireboat station and operations would experience some impacts under storm conditions. A June 5, 2018 Argonautics Marine Engineering report indicates that the float roll and transverse acceleration levels could exceed the Faltinsen comfort criteria limit, which is used to assess comfort levels for cruise ship passengers, for approximately 18 hours throughout the year under typical storm conditions. The applicants indicate that the SFFD considers this exceedance to be reasonable with regards to the comfort and ability of firefighters stationed on the float to perform their duties. The Argonautics Marine Engineering report also found that fireboat mooring alongside the float may not be safe under severe storm conditions, and the fireboats may need to be relocated. The applicants indicate that the fireboats could need to be moved off of the float potentially in storm conditions worse than the 1-year storm, expected to occur approximately once or twice per year. The fireboats could be temporarily relocated during a 1-year or greater storm event to Pier 26, Pier 45, or Pier 1 on Treasure Island. When the fireboats are relocated during storm events, the fireboat crew would evaluate storm conditions and determine whether to remain on board and respond from the fireboats, or to return to and respond from the proposed fireboat station. The applicants indicate that the fireboats would not need to be relocated during predictable King Tides, and that relocating the fireboats off of the float in storm conditions is not expected to impede SFFD's first response mission.

Finally, Bay Plan Safety of Fills Policy No. 3 states, "[t]o provide vitally-needed information on the effects of earthquakes on all kinds of soils, installation of strong-motion seismographs should be required on all future major land fills" and "the Commission encourages installation of strong-motion seismographs in other developments on problem soils and in other areas recommended by the U.S. Geological Survey, for purposes of data comparison and evaluation." The applicants have been working with the California Strong Motion Instrumentation Program at the California Geological Survey to determine a plan for seismic instrumentation for the proposed project. This plan is not yet finalized.

*The Commission should determine whether the project is consistent with its laws and policies regarding Bay fill.*

- B. **Maximum Feasible Public Access.** Section 66602 of the McAteer-Petris Act states, in part, "existing public access to the shoreline and waters of the...[Bay] is inadequate and that maximum feasible public access, consistent with a proposed project, should be provided." In addition, the Bay Plan policies on public access state, in part, "[a] proposed fill project should increase public access to the Bay to the maximum extent feasible..." and that "maximum feasible access to and along the waterfront and on any permitted fills should be provided in and through every new development in the Bay or on the shoreline..." The San

Francisco Waterfront Special Area Plan (SAP) General Policy No. 6 also states, in part, that “maximum feasible public access should be provided in conjunction with any development in the area covered by this Special Area Plan.” The Bay Plan and SAP also contain more specific policies related to public access, as discussed in the sections below.

1. **Existing and Nearby Public Access.** The project site is Bayward of The Embarcadero. The Embarcadero Promenade, also known as Herb Caen Way, runs parallel to the project site, and is a required public access area under BCDC Permit No. 1990.008. Herb Caen Way, which ranges from 40- to 80-feet-wide in front of the project site, provides pedestrian and bicycle access along the waterfront and doubles as the Bay Trail at this location. A public restroom is located on Herb Caen Way near the existing Fire Station No. 35 south parking lot. Rincon Park is located to the north of the project site. Herb Caen Way is heavily used by the public.
2. **Proposed Public Access.** The following is a brief summary of newly constructed or repurposed public access areas for the proposed SF Fireboat Station project:
  - a. **Public Observation Deck.** An approximately 2,100-square-foot pile-supported public observation deck (1,800 feet in the Bay and 300 square feet within the 100-foot shoreline band) would be constructed adjacent to and flush with Herb Caen Way, directly south of the vehicular and pedestrian access ramp to the fireboat station float. The observation deck would include artwork and interpretive panels related to the fireboats and historic and modern fire stations.
  - b. **Marginal Wharf Public Access.** A 1,030-square-foot portion of the marginal wharf south of the existing Fire Station No. 35 would be retained and made accessible to the public during daylight hours. A gate would be installed to limit public access at night and during emergency events. A 492-square-foot portion of the marginal wharf on the north side of the existing fire station would be provided for public access through the removal of fencing and installation of a new gate pulled back from its current location on the sidewalk to the façade of the historic fire station.
  - c. **Fireboat Station Tours.** The applicants have proposed to provide free weekly tours of the new fireboat station to the public, and to post a sign at the site alerting the public of this opportunity.
  - d. **Swimming Access.** The applicants have proposed to provide access from the east edge of the fireboat station float to the water for swimmers twice per year, subject to safety rules that would be established with approval by or on behalf of the Commission.
3. **Commission Policies on Public Access.** As part of its determination regarding whether the project provides maximum feasible public access, the Commission must determine whether the proposed project is consistent with the following Bay Plan and SAP policies related to the siting, design, and use of public access:
  - a. **Public Access Siting and Connections to the Bay.** The SAP policies on public access state, in part, that public access “should provide direct connections to the Bay, both physical and visual” and “should emphasize passive recreation and focus on its

proximity to the Bay and on the views and unique experiences that nearness to the Bay affords.” Additionally, “[p]ublic overlooks and viewing areas should be provided on piers” and “[o]n-pier public access areas should be located to take advantage of the Open Water Basins, views of the Bay and its shoreline, views back to the City, wind protection and solar access. They should incorporate unique and special amenities that draw the public to them, including cultural expression (e.g., public art, event programming or unique views.)” Generally, public access “should be located at ground or platform level...” and “should also be open to the sky....”

The proposed project would provide a public observation deck over the Bay and public access areas on the marginal wharf, which would focus on passive recreation and would provide the public with views of the Bay and along the San Francisco waterfront shoreline. The small public access area in front of the façade on the north side of the historic Fire Station No. 35 would provide the public with views towards the Rincon Open Water Basin. The proposed public access areas would be located flush with Herb Caen Way, at the level of the existing wharf deck and would be open to the sky.

- b. **Safety of Public Access.** SAP Public Access Policy No. 2 states that “[p]ublic access should generally be accessible at any time; however, reasonable restrictions on public access may be approved to promote public safety and security.” Additionally, SAP Public Access Policy No. 8 states that “[i]n those instances where maritime use projects create public safety concerns, public access may be restricted or not required. When ship loading and service areas temporarily preclude complete perimeter access for the period of time of the use, due to legitimate safety concerns, such areas should be reopened to public access when the conflict is not present. When safety considerations preclude perimeter public access entirely, public access should be provided elsewhere to meet the public access area requirements, consistent with the project.”

The proposed project includes establishing a public access area on the south apron, adjacent to Fire Station No. 35. The applicants have proposed to limit the use of the public access area on the south apron to daylight hours only, for public safety purposes. The proposed project would include installation of a gate to close off the 1,030-square-foot south apron area at night or during an emergency event. This area would also be closed during limited training events using the Auxiliary Water Supply System manifold, which is located on the south apron; these closures would occur for 1 to 2 hours approximately 4 times per year. The remainder of the proposed public access area, including the new steel public observation deck, would remain open to the public 24/7.

Commission staff explored with the applicants whether it would be feasible to allow for public access on the north apron of the marginal wharf, on the opposite side of Fire Station No. 35. Access at this location would allow for additional opportunities for the public to view the fireboats and the proposed fire station, in addition to providing views of the Bay and Rincon Open Water Basin to the north. The applicants state that “[t]he construction of the new float will significantly reduce the

[SFFD's] operational area around the existing fire station and the fire department believes it is essential for the north side area to be restricted to only fire department personnel and equipment for the department to complete its mission." The applicants indicate that the SFFD would use the north apron area for temporarily parking a relief fire engine when Fire Engine 35 goes in for maintenance or repair, daily and specialized firefighting training, maintenance of landside firefighting equipment, and fire engine operational checks. The applicants further state that the restriction of public access from the north apron is critical for security purposes, including preventing theft, vandalism, and terrorism at Fire Station No. 35 and at the fireboats.

Commission staff explored with the applicants whether training could occur on the proposed float and new fireboat station, rather than on the north apron. The applicants state that "[d]aily training, for Fire Engine 35, currently occurs around the perimeter of the historic Fire Station 35. The proposed changes to the south side and front of the historic station will restrict training to the north side. Training for land-based fire calls would not occur at the new fire boat station since fire apparatus are restricted from entering the float."

Commission staff also explored with the applicants whether the north apron could be open to the public with restrictions similar to those that will be placed on the south apron public access area, in that it would be closed at night and during emergency events, and could also be temporarily closed during necessary trainings or when the relief fire engine is occasionally staged on the north apron. The applicants indicate that any use of the north apron area for public access, behind the proposed gate, is infeasible based on fire department operational needs and would create public safety and security concerns. In lieu of providing public access on the north apron, the applicants have proposed expanding the public observation deck by approximately 200 square feet (from approximately 1,900 square feet, as was originally proposed, to 2,100 square feet in total) and offering regular free public tours of the proposed floating fireboat station.

- c. **Parking and Transportation.** SAP Public Access Policy No. 13(f) states that "[v]ehicle circulation in public access areas should be limited to service and maintenance vehicles necessary to serve the facility and should be concentrated during late night and early morning hours." SAP Transportation and Parking Policy No. 4 states, in part, that "[p]arking on piers will be planned to minimize adverse impacts on public access through such measures as...limiting vehicle access on pier aprons to maintenance, service and emergency vehicles; and using special paving, signing and other design treatments at crosswalks and other pedestrian-vehicle interfaces to identify the joint use and ensure a pedestrian-friendly environment."

Emergency vehicles would access the proposed float and fire boat station during emergency situations, by driving across the proposed public observation deck to access the vehicle ramp to the float—an approximately 260-square-foot area of vehicle and public access overlap. The application states that the SFFD "anticipates that that vehicles accessing the float across the public access deck will be minimal.

Besides emergency, maintenance and service vehicles, the fire department does not anticipate any other vehicles will be accessing the float. To protect the public and fire department employees the department has instituted policies and training regarding safe driving practices. Fire Department drivers are required to follow all California Vehicle Code requirements and when responding to emergency are required to respond with Code 3 lights and sirens. The fire department also requires that spotters be in place while backing up fire department vehicles for safety and to minimize conflicts with the public.” The application further states that “[a]s the vehicle traffic will be restricted to very limited numbers of Fire Department service vehicles during normal operations, the drive aisle area that crosses the new steel pier will remain open and freely accessible to the public 24/7 with only very limited, periodic interruptions as service vehicles pass through while entering/leaving the Marine Fire Boat facility.”

Fire Engine No. 35 would continue to operate out of the historic Fire Station No. 35, and would cross the Embarcadero as needed, as under current operations. When Fire Engine No. 35 is taken offline for maintenance, the applicants indicate that another fire engine would be temporarily stationed at the historic fire station. The additional rig would be parked on the north apron, as Fire Engine No. 35 is smaller than a standard engine and thus a standard engine requires more space to park than is available inside the historic station. Although fire station staff and visitor vehicles are currently parked on the south apron, that parking lot would be partially demolished and partially converted to public access as part of this project. Upon completion of the proposed project, no staff vehicles or vehicles other than emergency or maintenance vehicles would be parked onsite, including on the north apron. Fire station staff members would park offsite.

- d. **Historic Structures and Interpretation.** SAP Historic Preservation Policy No. 3 states that “[h]istoric structures should be showcased as an important amenity in the design of public access areas.” Additionally, SAP Public Access Policy No. 5 calls for the creation of a “‘Bayside History Walk’ to provide public access to the Bay’s intimate and quiet spaces behind historic bulkhead and connector buildings, provide views of the inner structure of the pier sheds and bulkhead buildings, and provide interpretation of, and make accessible to the public, these unique physical assets of San Francisco’s maritime history,” and states that the “Bayside History Walk should be a minimum of ten feet in width along the water’s edge...” and that interpretive amenities should be provided “including historic photographs, explanatory text and maritime artifacts so that the History Walk functions as a self-guided tour of the waterfront.”

The proposed public observation deck and the proposed public access on the south apron of the marginal wharf would include interpretive signage describing the history of the site, related to the historic Fire Station No. 35 and the role of the fireboats in water-based emergency response. The project also includes proposed public artwork on the public observation deck that would relate to the history of the site. The application states that although both the proposed public observation deck

and south apron public access “fulfill functions of the Bayside History Walk, neither area will be specifically identified in that role given the site’s detachment from other segments of the Walk.”

- e. **Public Access Design and Amenities.** Bay Plan Public Access Policy No. 12 states, in part, that “[t]he Public Access Design Guidelines should be used as a guide to siting and designing public access...” and that “[t]he Design Review Board should advise the Commission regarding the adequacy of the public access proposed. The Commission’s Public Access Design Guidelines state that public access should be designed “so that the user is not intimidated nor is the user’s appreciation diminished by large nearby building masses....” Furthermore, “[p]ublic access improvements should be designed for a wide range of users,” should provide “interpretation of historical, cultural or natural attributes of the site,” and should “[orient] the development to Bay views and provid[e] physical connections at every opportunity.” The guidelines also state that viewing the Bay is the “most widely enjoyed ‘use’ and projects should be designed to “enhance and dramatize views of the Bay.”

Furthermore, the SAP policies on public access state, in part, that “[p]aving materials should be of a quality and compatible with the adjacent building materials and overall project character,” “[a]bove-grade utility boxes within public access areas should be discouraged and only permitted if they can be integrated into a public serving feature...or appropriately screened against a pier shed wall,” and that public access areas should address microclimate conditions, provide maximum visibility from adjacent uses and adequate lighting, and provide signage. SAP Public Access Policy No. 13(c) states that the “[s]ite should include lighting, seating, trash and recycling containers, and public access and interpretive signage. Other site furnishings could include planters, sculpture and other public art, telescopes, drinking fountains, public restrooms...and other furnishings, when appropriate and necessary to meet public needs.”

The proposed public observation deck and marginal wharf public access areas will provide Bay viewing opportunities for a variety of users, and will provide both interpretive signage and artwork that reflects the site’s historical use and its setting on the Bay. The public observation deck paving would be concrete over a steel plate deck, which is compatible with the concrete of the marginal wharf deck, maritime character of the site, and nearby sites on the waterfront such as Pier 1.

The proposed project would include an above-grade utility box—an 8-foot-high, approximately 17.4-square-foot electrical service switchboard—to be located adjacent to the public observation deck on Herb Caen Way. The outside of the switchboard would be wrapped with public access informational signage.

The final lighting design for the proposed project is still under development. Downlight fixtures would be installed at each post on the guards at the edge of the public observation deck. Lighting would also be installed on the sides of the access ramp and gangway to the fireboat station and on the float and exterior of the

fireboat station. The public access area on the south apron marginal wharf would be open to the public during daylight hours only, and thus would not require nighttime lighting. The remainder of the public access would be open to the public 24/7, and is adjacent to Herb Caen Way.

The proposed project would not include seating or trash and recycling containers, but the application notes that these items “are currently accommodated within close proximity of the new fixed pier” on Herb Caen Way. The proposed project would include two public bicycle racks near The Embarcadero, west of the historic Fire Station No. 35.

A public restroom is currently located on Herb Caen Way near the proposed project. The applicant indicates that the location of this facility conflicts with vehicle access to the proposed fireboat station. The public restroom would be removed and a new restroom unit installed close to Pier 22 ½. San Francisco Public Works plans to provide temporary alternate restroom facilities if needed due to the timing of the new restroom installation. Fire Station No. 35 currently has a restroom that can be accessed by members of the public upon request while they are visiting the station, and the applicants indicate that this service will continue to be available.

- f. **Barrier-Free Access.** Bay Plan Public Access Policy No. 7 states, in part, that “[p]ublic access improvements provided as a condition of any approval...should permit barrier free access for persons with disabilities to the maximum feasible extent.” SAP Public Access Policy No. 13(b) states, in part, “[h]and rails should maximize visual access to the Bay, particularly for children and persons in wheelchairs...”

The proposed public observation area would be constructed flush with the Herb Caen Way pedestrian promenade and would be universally accessible. The public access areas on the marginal wharf would also remain at the existing grade of the marginal wharf, which is flush with the Herb Caen Way pedestrian promenade. The railings around the perimeter of the public observation deck would be 3.5 feet above the deck.

- g. **Operations and Maintenance.** Bay Plan Public Access Policy No. 7 states, in part, that “[p]ublic access improvements provided as a condition of any approval...should include an ongoing maintenance program.” SAP Public Access Policy 13(j) also states that “[p]ublic access improvements provided for projects within the Northeastern Waterfront should be designed to be low maintenance and should be maintained by the responsible party.”

The public access areas would be operated on a day-to-day basis by SFFD, whose staff would close the south apron public access area at night, maintain public safety relative to the fireboat station operations, and monitor the public access areas for flooding or other concerns. San Francisco Public Works and the Port of San Francisco would be responsible for maintaining the public access over time. The public access areas are designed to be low-maintenance, with concrete decks and minimal site features that do not support either Bay viewing or interpretation of site history and role of the fireboats in water-based emergency response on the Bay.

- h. **Sea Level Rise.** The Commission's policies pertaining to sea level rise and public access are discussed further under Staff Analysis Section D, below.

*The Commission should determine whether maximum feasible public access consistent with the project would be provided, and if the project is otherwise consistent with the McAteer-Petris Act, Bay Plan and SAP policies on Public Access.*

- C. **Appearance, Design, and Scenic Views.** The Bay Plan Appearance, Design, and Scenic Views policies state, in part, that "all bayfront development should be designed to enhance the pleasure of the user or viewer of the Bay" and that "[m]aximum efforts should be made to provide, enhance, or preserve views of the Bay and shoreline, especially from public areas..." Furthermore, "[s]tructures and facilities that do not take advantage or complement the Bay should be located and designed so as not to impact visually on the Bay and shoreline. In particular, parking areas should be located away from the shoreline...."

SAP General Policy No. 7 states, in part, that "[i]mportant Bay views along The Embarcadero and level inland streets should be preserved and improved." The SAP policies on Bay Views further state that "[s]treet rights-of-way that connect with the waterfront should be preserved and improved..." and that, specifically, Bay views from Folsom Street, and Bay and Bay Bridge views from Harrison Street should be preserved or improved as part of new development on piers. Harrison and Folsom Streets are also dedicated view corridors under BCDC Permit No. 1990.008.

The SAP policies state that "[m]inor encroachment into the view corridors from level inland streets may be permitted under the following conditions: a. Where the encroaching element has a distinct maritime character, is separated from the shoreline by water, and adds variety to the views along the waterfront; ...c. Where essential maritime facilities cannot reasonably be located and designed to avoid view blockage."

The SAP policies on Bay views also state, in part, that "[d]iverse views of the Bay, the City and waterfront and maritime activities along the water's edge should be provided at frequent intervals along The Embarcadero and Herb Caen Way...and from public plazas and public access on piers..." and that "[p]ublic overlooks and viewing areas with convenient pedestrian access should be provided on piers..." The Bay Views policies further state that "[v]iews of the water should be maximized by designing handrails, fences, marina gates, canopies and other shoreline accessory structures with maximum practicable transparency."

With regard to design, the SAP policies on Waterfront Design state, in part, that "[d]evelopment should take advantage of its location on the Bay and reflect and recognize the unique identity of the waterfront districts..." and that "[m]ajor new developments on waterside properties should highlight maritime features." The policies on Waterfront Design further state that design should encourage transparent buildings, avoid placing mechanical equipment on roofs, prohibit use of reflective glass, and that "[b]uilding height and bulk should generally be low scale in order to preserve views to the Bay, minimize shading of on-pier public access areas and reflect the historic character of the waterfront."

The proposed fireboat station, float, piles, and access ramp would be seen from along the shoreline at Herb Caen Way and The Embarcadero, and would be seen within the designated view corridor from Harrison Street. The two-story fireboat station would rise and fall on its guide piles with changing water levels, and thus would have slightly greater view impacts at higher tides than at lower tides. The four float guide piles would have a top elevation of +25.0' NAVD88, and thus would extend approximately 13.6 feet above the existing elevation of the water-side high point of the marginal wharf and 14.7 feet above the existing elevation of Herb Caen Way. Certain equipment and uses located on the proposed float would also be visible from the shoreline and Harrison Street view corridor, including a jib crane mast extending 22 feet in height above the waterline with a 23 foot boom, which the applicants indicate would be stored in a position over the float when not in use. SFFD operations on the float, including use of the fireboat and emergency vehicles, would be visible from the shoreline and Harrison Street view corridor.

The applicants explored other massing options for the proposed fireboat station, which could have changed the orientation of the float and fireboat station relative to the shoreline, and determined that the proposed orientation represented the least significant view impacts. The proposed fireboat station would be designated an “essential facility” for disaster response and would thus maintain maritime uses and character along the shoreline. The application states that views from the designated Harrison Street view corridor are preserved “by drawing the viewer down to the maritime activities of the Bay and specifically to the Fireboat Station and moored fireboats.” In response to comments by the Commission’s DRB, the applicants modified the design of the proposed fireboat station to include 50 percent more glazing on the ground floor of the north façade to increase visibility inside and through the building and allow views of the Bosun’s room, water craft, and stairs. The applicants also modified the design to decrease the building size by 8 percent from the original design, which decreased building length and decreased building height except in areas with mechanical equipment. Mechanical equipment is proposed to be located on the roof of the floating fireboat station, but would be screened to minimize view impacts.

The public observation deck and public access areas on the marginal wharf would provide views of the Bay and Bay Bridge, as well as views of the maritime activities at the floating fireboat station. The public observation deck would include railings that the application notes would be “[a]t code-minimum height to maximize views.” The project would also pull existing fencing back to allow for the new public access areas on the marginal wharf, but would also install new fencing to maintain site security. The application states that the visual transparency of fences, gates, and railings would be “increased to the maximum extent possible by reduction of pickets—to the maximum extent possible without compromising public safety or security,” and providing code-minimum coverage. Public artwork is also proposed to be installed on the public observation deck, the final design for which has not yet been determined. Depending on the scale and design of the public artwork, views of the Bay from the observation deck, Herb Caen Way, and/or Harrison Street could potentially be impacted.

*The Commission should determine whether the project is consistent with Bay Plan policies on Appearance, Design, and Scenic Views and related SAP policies.*

- D. **Sea Level Rise and Flooding.** The Bay Plan Safety of Fills Policy No. 4 states, in part, that “[a]dequate measures should be provided to prevent damage from sea level rise and storm activity that may occur on fill or near the shoreline over the expected life of a project....New projects on fill or near the shoreline should...be built so the bottom floor level of structures will be above a 100-year flood elevation that takes future sea level rise into account for the expected life of the project, be specifically designed to tolerate periodic flooding, or employ other effective means of addressing the impacts of future sea level rise and storm activity.”

Further, Bay Plan Climate Change Policy No. 2 states, in part, “[w]hen planning shoreline areas or designing larger shoreline projects, a risk assessment should be prepared by a qualified engineer and should be based on the estimated 100-year flood elevation that takes into account the best estimates of future sea level rise and current flood protection and planned flood protection that will be funded and constructed when needed to provide protection for the proposed project or shoreline area. A range of sea level rise projections for mid-century and end-of-century based on the best scientific data available should be used in the risk assessment. Inundation maps used for the risk assessment should be prepared under the direction of a qualified engineer. The risk assessment should identify all types of potential flooding, degrees of uncertainty, consequences of defense failure, and risks to existing habitat from proposed flood protection devices.” Climate Change Policy No. 3 states, “[t]o protect public safety and ecosystem services, within areas that a risk assessment determines are vulnerable to future shoreline flooding that threatens public safety, all projects...should be designed to be resilient to a midcentury sea level rise projection. If it is likely the project will remain in place longer than mid-century, an adaptive management plan should be developed to address the long-term impacts that will arise based on a risk assessment using the best available science-based projection for sea level rise at the end of the century.”

Bay Plan Public Access Policy No. 5 states that “public access should be sited, designed, managed and maintained to avoid significant adverse impacts from sea level rise and shoreline flooding.” Bay Plan Public Access Policy No. 6 states, in part, “any public access provided as a condition of development should either be required to remain viable in the event of future sea level rise, or equivalent access consistent with the project should be provided nearby.”

Bay Plan Climate Change Policy No. 7 states that “[u]ntil a regional sea level rise adaptation strategy can be completed, the Commission should evaluate each project proposed in vulnerable areas on a case-by-case basis to determine the project’s public benefits, resilience to flooding, and capacity to adapt to climate change impacts. The following specific types of projects have regional benefits, advance regional goals, and should be encouraged, if their regional benefits and their advancement of regional goals outweigh the risk from flooding: ...b. a transportation facility, public utility or other critical infrastructure that is necessary for existing development or to serve planned development.”

1. **Vulnerability of Project Site.** The proposed public access areas, including the new steel observation deck and public access on the existing marginal wharf, would slope up from a low point of +10.3’ NAVD88 where they interface with Herb Caen Way to a high point of +11.4’ NAVD88 on the water side.

The steel float and fireboat station would rise and fall with tides on the proposed guide piles. The top of the steel float guide pile collars at the design high water will be approximately +18.2' NAVD88, and the guide piles have a top elevation of +25.0' NAVD88. The access ramp and gangway that would connect the float to the marginal wharf would be connected to the wharf at its existing elevation. That is, while the float rises and falls with changing water levels, the landside connections of the ramp and gangways would remain at elevation +11.4' NAVD88. The public observation deck and the landside connection to the float are therefore interconnected in their vulnerability to sea level rise.

The project site is sufficiently elevated to avoid flooding under today's 100-year flood event conditions. According to the Federal Emergency Management Agency ("FEMA"), current 100-year base flood elevation (BFE) for the project site is +9.8' NAVD88, or 0.5 to 1.6 feet below the sloped elevation of the marginal wharf that would support the proposed public access and vehicular and pedestrian access to the float. BFE is the elevation to which floodwaters are anticipated to rise during a 100-year flood event, which has a 1 percent chance of occurrence in any given year.

2. **2018 State Sea Level Rise Guidance.** In analyzing a project's risk of flooding as a result of future sea level rise, the Commission currently relies on the sea level rise estimates provided in the 2018 State of California Sea Level Rise Guidance from the Ocean Protection Council and Natural Resources Agency ("2018 State Guidance"), which represents the best available science. The 2018 State Guidance includes a range of sea level rise projections. These projections correspond to projects for which a "low risk," "medium-to-high risk," or "extreme risk" aversion planning scenario is called for. The following examines what water levels the projections would indicate for planning for the future of this project, with an anticipated lifetime of approximately 50 years, through about 2070.

*Low-Risk Aversion Planning Scenario.* A low-risk aversion planning scenario is appropriate for use in projects where decision-makers can be fairly risk tolerant, in that the project is easily adapted, the consequences of failure are low, and so forth. A low risk aversion planning scenario for this project would be to plan for 3.1 feet of sea level rise by 2070 under a low-emissions scenario (i.e., assuming coordinated global reductions in greenhouse gas emissions) and 3.5 feet of sea level rise under a high-emissions scenario (i.e., "business-as-usual" emissions).

*Medium-to-High Risk Planning Scenario.* The medium- to high-risk aversion projections are appropriate to provide "a precautionary protection that can be used for less adaptive, more vulnerable projects or populations that will experience medium to high consequences as a result of underestimating sea-level rise (e.g., coastal housing development)." The medium- to high-risk projections are chosen such that the likelihood that sea level rise will meet or exceed the projections is low (though they may underestimate the potential for extreme sea level rise). The projections anticipate that 1.9 feet of sea level rise will occur at 2050. After 2050, if global greenhouse emissions are curbed consistent with the United Nations Framework Convention on Climate Change (UNFCCC) 2015 Paris Agreement—a "low-emissions" scenario—3.1 feet of sea

level rise is anticipated to occur at 2070. If global emissions are not aggressively reduced and a “business-as-usual” scenario occurs—a “high-emissions” scenario—3.5 feet of sea level rise is anticipated to occur at 2100.

*Extreme-Risk Planning Scenario.* A more conservative set of projections (H++ scenario) is designed for projects where extreme risk aversion is called for, because there is little to no adaptive capacity or the consequences of flooding to public health, public safety, or environmental impacts would be great. An extreme risk aversion planning scenario (H++ scenario) for this project would be to plan for 5.2 feet of sea level rise by 2070.

*Determining Risk Tolerance for Analysis Purposes.* The analysis in this Application Summary relies on the State’s projections for projects where a “medium to high” level of risk aversion is called for. Commission staff believes that planning for this level of risk aversion is appropriate in analyzing the proposed project for several reasons.

First, the fireboat station is a critical regional emergency facility that must be relied upon to function as planned when it is needed. This fact could be considered grounds to dismiss the low-risk aversion planning scenario for the Commission’s review of this project. In fact, it might suggest that an extreme-risk planning scenario would be appropriate. However, given the fireboat station’s location on San Francisco waterfront and along The Embarcadero, it must interface with an urban edge with limited near-term adaptive capacity. While longer-term efforts are being considered to provide protection against extreme flooding and seismic events (i.e., through the Port’s Embarcadero Seawall project), the fireboat station project must be able to function in this constrained environment. As discussed in more detail below, the project largely compensates for this constraint through measures designed to provide adaptive capacity. These adaptive measures should provide flexibility across a range of sea-level rise projections. The proposed project also has an anticipated project life of approximately 50 years—which means that it will be in place until 2070, but would be anticipated to be majorly renovated or replaced well before more extreme sea level rise scenarios at the end of the century. Therefore, a medium-to-high risk aversion scenario is called for in because it employs a precautionary projection that balances the low-risk and extreme-risk scenarios, and also factors in the unique site location and project design considerations at play in this project.

Second, the project includes public access facilities that extend those already provided along Herb Caen Way and The Embarcadero. These facilities will contribute to one of the most widely-used public access corridors in the Bay Area, and will provide an important public benefit to the Bay Area’s growing population. The Bay Plan requires that such public access remain resilient to anticipated sea level rise. Therefore, a medium-to-high risk aversion scenario is appropriate in that the consequences of flooding to the project’s public access areas are regionally significant.

Therefore, employing the medium-to-high risk scenario at the project site, where the Mean Higher High Water (MHHW) Level is +6.26' NAVD88, the following water levels would be planned for:

- At 2050, with an anticipated rise in sea level of 23 inches (1.9 feet), the MHHW level would be +8.16' NAVD88. The water levels during a 100-year (1 percent likelihood) storm would be +11.56' NAVD88.
- At 2070, assuming a low-emissions scenario, with an anticipated rise in sea level of approximately 37 inches (3.1 feet), the MHHW level would be +9.36' NAVD88. The water levels during a 100-year (1 percent likelihood) storm would be +12.76' NAVD88.
- At 2070, assuming a high-emissions scenario, with an anticipated rise in sea level of approximately 42 inches (3.5 feet), the MHHW level would be +9.76' NAVD88. The water levels during a 100-year (1 percent likelihood) storm would be +13.16' NAVD88.

3. **Resilience to Mid-Century Sea Level Rise.** Planning for 1.9 feet of sea level rise by 2050, the areas proposed at an elevation of +11.4' NAVD88 (i.e., the water-side high points of the public access observation deck, public access areas on the marginal wharf, and the vehicle and pedestrian access routes to the float and fireboat station) are anticipated to be subject to occasional flooding during storm events. These areas are anticipated to flood with approximately 1.9 inches of overtopping during a 100-year storm event. Areas at an elevation of +10.3' NAVD88—the public access area low points at their interface with Herb Caen Way—would be anticipated to flood beginning with approximately 1.2 inches of overtopping during a 10-year storm event, 10.6 inches of overtopping during a 50-year storm event, and 15 inches (1.3 feet) of overtopping in a 100-year storm event. While the water-side high points of the public access areas may provide some protection for the lower points at the interface with Herb Caen Way, flooding may also occur along the sides of the sloped public access areas or due to overtopping along the shoreline, such as from lower-elevation areas along Herb Caen Way and The Embarcadero. During the anticipated infrequent flooding events at mid-century, the applicants indicate that they would close the affected public access areas until the water recedes and SFFD staff determines that the public access is safe for use. The applicants also state: “To maximize the resiliency of these public access areas, they have been designed to drain water towards the Embarcadero streetway/sewer system, thereby ensuring that there will not be standing water at any of these locations prior to mid-century.” With regards to access to the float for fireboat station operations, the applicants indicate that the design emergency vehicle (a Mercedes Sprinter ambulance) can drive through up to 1.5 feet of water, and therefore would be able to cross a flooded pier and access ramp entrance from the Embarcadero up to a water elevation of +11.9' NAVD88.

4. **Adaptation to 2070 Sea Level Rise.** The project is evaluated for sea level rise through 2070, as the design life of the steel float and fireboat station is approximately 50 years. The steel float and fireboat station would rise and fall with the tides. The pile supports are anticipated to function until such time as sea level rise exceeds the height of the guide pile collars (+18.2' NAVD88), which is not anticipated to occur by 2070 given the selected sea level rise projections. Under the medium-high risk aversion scenario with a "low-emissions" scenario, the water-side high points of the public observation area, marginal wharf public access, and entrance to the access ramp to the float (at elevation +11.4' NAVD88) would be flooded beginning with approximately 2.4 inches in a 10-year storm event, and approximately 1.4 feet (16.8 inches) of flooding in a 100-year flood event. Areas at +10.3' NAVD88—the public access low points at their interface with Herb Caen Way—would be anticipated to flood beginning with approximately 3.8 inches in a King Tide (1-year storm event), 1.3 feet (15.6 inches) in a 10-year storm event, and 2.5 feet (30 inches) in a 100-year storm event. Under the medium-high risk aversion scenario with a "high-emissions" scenario, the water-side high points of the public observation area, marginal wharf public access, and entrance to the access ramp to the float (at elevation +11.4' NAVD88) would be flooded beginning with approximately 3.7 inches in a 5-year storm event, and approximately 1.8 feet (22 inches) of flooding in a 100-year flood event. Areas at +10.3' NAVD88—the public access low points at their interface with Herb Caen Way—would be anticipated to flood beginning with approximately 8.6 inches in a King Tide (1-year storm event), 1.4 feet (16.8 inches) in a 5-year storm event, and 2.9 feet (34.8 inches) in a 100-year storm event.

The applicants indicate that the design of the access ramp and gangway would be such that the landside connection points could be disconnected and reinstalled at a higher elevation, if the shoreline were to be raised to accommodate sea level rise. The applicants also state that the public observation deck could be raised in the future by disconnecting the deck from the underlying piles, lengthening the piles, and reattaching the deck to the lengthened piles. Such an action would also need to address the connection of the observation deck with Herb Caen Way, to ensure that it remains accessible.

The public access areas on the marginal wharf are not proposed to be raised in the future. The applicants indicate that adaptation actions for this area and for the observation deck and float access connections (prior to raising those features) could include the following: (1) Installing temporary flood barriers; (2) Installing a pump system, such as submersible utility pumps on the marginal wharf; and (3) Elevating vulnerable equipment and temporarily relocating operations out of the landside Fire Station No. 35 building on the marginal wharf.

#### E. Review Boards

1. **Engineering Criteria Review Board.** The Commission's Engineering Criteria Review Board (ECRB) did not review the proposed project because the fill did not raise significant safety issues, in part, because the proposed fireboat station will be considered an essential structure and thus the City and County of San Francisco and Port Building Code require that the facility be designed to high seismic performance

standards, including meeting Immediate Occupancy Performance Level in the event of a Design Earthquake. The floating design of the fireboat station also includes float guide piles that are anticipated to resist lateral load imposed on the station by seismic ground motions and design storms. The piles for the public observation deck, which will be embedded in rock fill next to the historic seawall, have a “high” seismic design classification and thus site-specific ground motions were developed according to code standards. Seismic performance was considered in the design of the public observation deck for Operating Level and Contingency Level Earthquakes. In an Operating Level Earthquake, or an earthquake of 7.5 magnitude (expected to occur roughly every 72 years), the public observation area is expected to sustain only minor non-structural damage and would remain functional. In a Contingency Level Earthquake, or an earthquake of 7.9 magnitude (expected to occur very infrequently, roughly every 475 years), the public observation area may suffer some damage but is not expected to collapse. The applicants also retained a consultant, New Albion Geotechnical, as a peer reviewer for the project.

2. **Design Review Board.** The Commission’s Design Review Board (DRB) first reviewed the proposed project on February 26, 2018, at a joint meeting with the Port of San Francisco’s Waterfront Design Advisory Committee (WDAC). The joint boards’ comments included recommendations, in part, to: reevaluate materials; take pressure off of the new fireboat station by using portions of the historic Fire Station No. 35; open the façade to allow the public to see in and through the building; make the historic building more graciously treated and publicly visible and accessible, including moving the fences back as much as possible; make the facility educational; make the upper roof form softer; and to consider views that look down on the new fireboat station such as from the far side of The Embarcadero.

In response to these comments, the project proponents modified the exterior design to include silver-ribbed metal panels, steel plate, and 50 percent more glazing on the ground floor to allow more interior visibility; moved some proposed uses, such as an extractor room, from the new fireboat station to the historic Fire Station No. 35, and reduced the building area by 8 percent through the reduction of toilet fixtures, beds, desks, and shafts; retained the marginal wharf south of the historic Fire Station No. 35 for public access and educational opportunities; and moved the proposed fences 5 feet back from historic facades and 15 feet back from the Embarcadero Promenade.

On June 11, 2018, the DRB and WDAC jointly reviewed the revised project proposal. In general, the joint boards noted that the changes to the design, fences, and public access areas proposed provided increased public access opportunities and helped to decrease view impacts. The joint boards’ additional recommendations focused, in part, on: providing the maximum public access feasible on the marginal wharf while allowing for fireboat operations; further increasing transparency of the design; adding public seating on the marginal wharf; narrowing the fence pickets to increase views; focusing on the maritime character of the proposed fireboat station; including interpretative opportunities; and ensuring that the north side of the marginal wharf that would be open to the public remains inviting.

- F. **Environmental Review.** On November 30, 2018, the San Francisco Planning Department, as the lead agency, published the Final Mitigated Negative Declaration for the “0 The Embarcadero/Pier 22 ½ Fire Boat Headquarters” project.
- G. **Relevant Portions of the McAteer-Petris Act**
  - 1. Section 66602
  - 2. Section 66605
  - 3. Section 66632
- H. **Relevant Portions of the San Francisco Waterfront Special Area Plan**
  - 1. General Policies
  - 2. Policies on Open Water Areas
  - 3. Policies on Public Access
  - 4. Policies on Historic Preservation
  - 5. Policies on Transportation and Parking
  - 6. Policies on Bay Views
  - 7. Policies on Waterfront Design
- I. **Relevant Portions of the San Francisco Bay Plan**
  - 1. Policies on Fish, Other Aquatic Organisms, and Wildlife
  - 2. Policies on Water Quality
  - 3. Policies on Water Surface Area and Volume
  - 4. Policies on Climate Change
  - 5. Policies on Safety of Fill
  - 6. Policies on Public Access
  - 7. Policies on Appearance, Design and Scenic Views
  - 8. Policies on Mitigation

## Exhibits

- A. **Regional and Project Vicinity Map**
- B. **Waterfront Site Plan with View Corridors**
- C. **Existing Site Conditions**
- D. **Proposed Demolition Plan**
- E. **Proposed Site Plan**
- F. **Proposed Fireboat Station: First Floor**
- G. **Proposed Fireboat Station: Second Floor**

- H. **Proposed Fireboat Station: South Side**
- I. **Proposed Fireboat Station: North Side**
- J. **Proposed Fireboat Station Rendering**
- K. **Public Access Proposal (Site Plan)**
- L. **Public Access Proposal: Observation Deck Rendering**
- M. **Public Access Proposal: South Apron Rendering**
- N. **Views with Proposed Fireboat Station (1)**
- O. **Views with Proposed Fireboat Station (2)**
- P. **Views with Proposed Fireboat Station (3)**